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THE COMPLETE GUIDE TO GOING 1:1

WHAT EDUCATORS NEED TO KNOW

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GoGuardian

Intro

Who Should Read this eBook?

If you're reading this, your school is likely considering going 1:1 or revamping your technology program.

This guide to going 1:1 was designed as a reference for educators at any stage of a digital learning program: whether you're expanding your 1:1 program across additional grades, introducing devices for the first time, or looking to update the devices used in your schools. It was written by educators, for educators, and offers relatable and scalable insight from people who have managed device rollouts across their districts.

There's no right or wrong way to use this resource: skim and skip to chapters that feel particularly relevant to you, read it through and go back to sections that really resonate, or simply save it as an ongoing resource to check in with your objectives, mission and vision for your district's digital learning program.

Chapter 1

The Why, Who, and Where of 1:1

Something has grabbed leadership's attention for going 1:1 in a school or district. There are many roads that could bring a leader to this point: administrative initiatives, teacher interest, student need, community pressure, technology wants, or any other number of objectives. However, the first questions should be around why, who, and where. Why is the school interested in adding this powerful tool to the classroom? Both Churchill and Spiderman agree that "with great power comes great responsibility" - and in the case of going 1:1 this is absolutely true. School organizations may only have one chance to roll-out a successful 1:1 program. If the first attempt is botched any subsequent attempt will be met with skepticism and doubt - and rightly so. When evaluating why a district is going to invest in this resource it also must spend a great deal of effort determining who it will begin with and be involved while determining where it will take place. Is this going to be attempted as a program in a single classroom, grade level, a single school, the entire district, or some other combination? The answers to who and where start with why.

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Key Questions about Why

"Why will this improve learning?" is the key question to ask when starting a 1:1 program. An organization needs to look past all of the pressures that lead them to this decision and focus on a single question of "why?". The research is starting to show, that if done correctly, 1:1 devices can help in the learning process. Ultimately, a school must answer why it is adding a 1:1 device and how that will impact learning in a positive way. In the process school leaders need to define their vision of how the program will begin. If a school community is determined to go in this direction, and it is ready to put in the effort to make it work, then it is time to reach out to students and teachers and solicit questions to validate or challenge the initial vision. A best practice is to combine anonymous surveys with focus groups to gather feedback. Any time that anonymous questions are gathered there needs to be a commitment to provide a summary of these questions with responses to help the community to know community concerns in comparison to what leadership

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believes. This needs to take place both heading into the process and throughout - with leadership sharing what opinions have changed based on the feedback gathered and processed. Ultimately the organization should end up with a better understanding of how the devices might change teaching and learning.

The mistake that many school districts make is beginning with device selection before talking about device selection before having a clear vision of why they are going 1:1. I once heard a story of a Superintendent that saw someone in a coffeeshop with an iPad and based on that single interaction decided to go 1:1 in their district because of how futuristic they looked. There are dozens of similar stories for whiteboards, school furniture, and textbooks as well. There needs to be more substance to a 1:1 program than "cool factor".

If the expectation is that students will live with a specific device for a whole day then the leadership had better be able to do this as well.

A common practice when developing the vision is to take a team on several site visits to other schools that have successfully (or unsuccessfully) possible addition as much can be learned from failure also implemented a 1:1 program. A school should try to bring a wide variety of staff on these site visits. Bringing students along is a great idea as well. Try to structure visits with a combination of classroom time; small group Q&A meetings with teachers, technology staff, administrators, and students; and an opportunity to walk through large meeting/common areas to see how students use devices when not being directly supervised.

Once the rationale for 1:1 has been clearly communicated, it is time to test. This is commonly referred to as piloting (however if the school is definitely going 1:1 this isn't a pilot, it is a trial, the decision has already been made to move forward). This is an opportunity to test out the who and where on a small scale. Best practice is to place a variety of devices and models in the hands of the students and teachers that will be using them. If the expectation is that students will live with a specific device for a whole day then the leadership had better be able to do this as well. Administrators, technology staff, and teachers must make an effort to put away their primary device for a while and try to use the 1:1 student devices as much as possible. The adults should spend time observing classrooms where devices are being used and get feedback from the students and teachers. Observers should ask questions like: what works regardless of the device, what challenges or successes are device specific, what isn't ever going to work? Professional development leaders or instructional coaches should begin working one-on-one coaching the teachers involved in the trial. Problems and concerns should be

evaluated to determine if solutions involve training or technical support. Determine if the leadership is going to need to dedicate time, money, or both to solve problems that come up. Most importantly, the organization needs to determine during the trial if the devices are helping learning or getting in the way of it.

Chapter 2

Looking at other Programs, Testing, and Piloting Questions about What, Why and How

After feedback from the trial period has been gathered, that includes information from the student perspective, a full unbiased review of the available device options must be completed. Device selection must support the vision and a great tool for ensuring this process is valid is through the use of a rubric. Taking the emotion out of device selection can be the greatest challenge for an organization especially when familiarity with a company or operating system bleeds into the decision process.

All too often teachers, instructional technology staff, or administrators like to rely on tools they are already comfortable with. Those evaluating the tools may be fans of a specific product and could have a skewed judgement or bias. This has to truly be a transparent group decision. To enable these conditions, a scoring system must be weighted to favor the organization's values and should include aspects of the vision, ease of use and interface, management and securability, cost and sustainability, total cost of ownership, durability and reparability, compatibility with current and future networks, scalability, support, and compatibility with curricular resources.

Taking the emotion out of device selection can be the greatest challenge for an organization...

Topics to consider with each of these categories is summarized below:

Organizational value and vision: Does the device enhance learning or get in the way of it?

Ease of use and interface: Can students and teachers start using and continue to operate the device without much training and upkeep?

Management and securability: Can the device be configured and secured from a centralized control panel that includes considerations for anti-virus, data security, software or app management, and user profiles?

Cost and sustainability: Does the initial cost and ongoing refresh expenses fit into current and forecasted budgets?

Total cost of ownership: How much does the device cost to operate over several years including break/fix, software/app licensing, and other ongoing costs?

Durability and repairability: What percentage of devices are expected to break, what types of typical repairs are there going to be, what are the costs of parts, and will a sufficient supply of parts remain available for the life expectancy of the device?

Compatibility with current and future networks: How easily can the device be configured to work on the current network with reliability and security? Will it be able to in the future?

Scalability: If the program will begin small - can the organization provide the resources to grow it for all students to take advantage of the resources?

Support: Can repairs be performed by current staff or students? Is there enough staff to support ongoing repairs for the specific device?

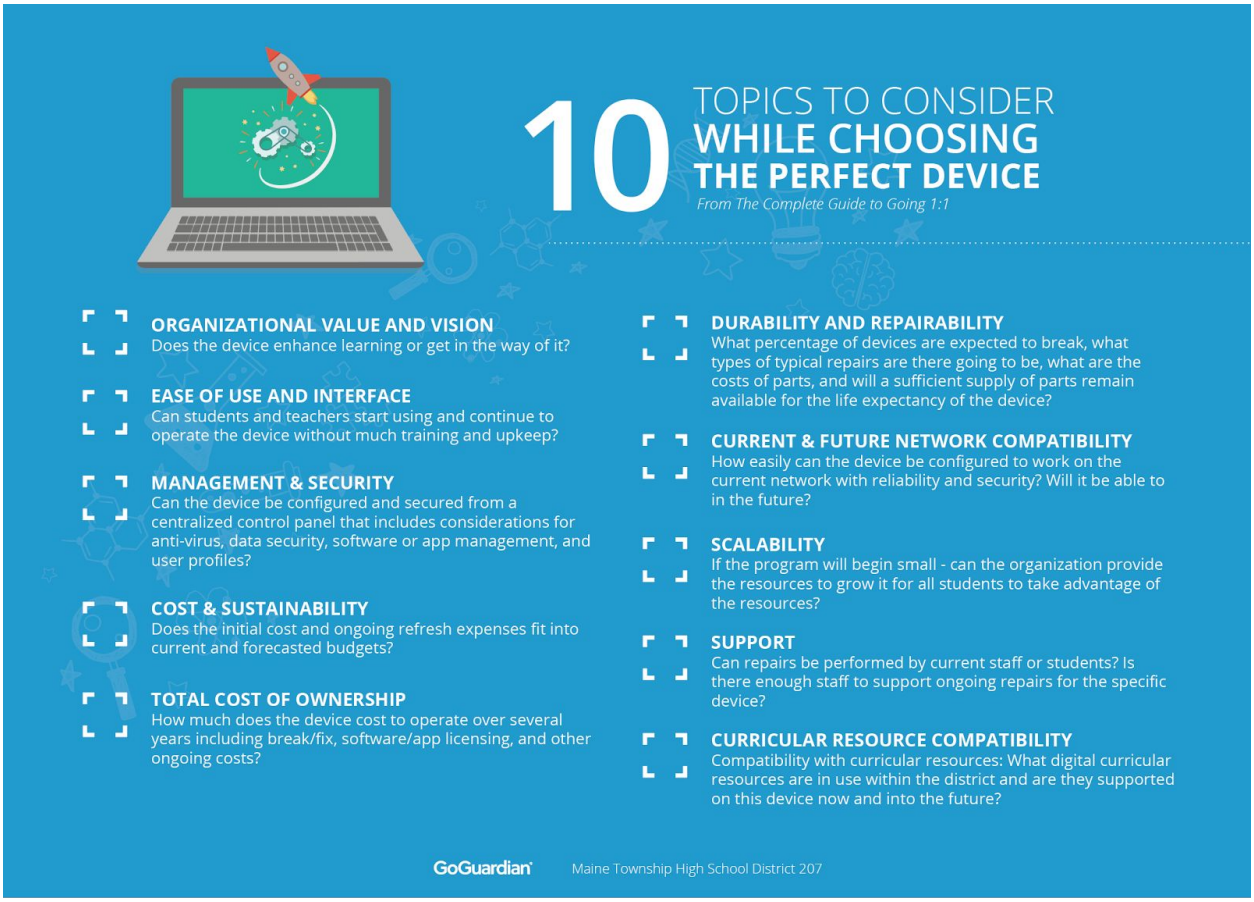
Compatibility with curricular resources: What digital curricular resources are in use within the district and are they supported on this device now and into the future?

The organization must also consider third party tools, insurance, or infrastructure beyond the 1:1 device that might be purchased to support this change. The leadership needs to investigate if they should invest in tools like GoGuardian that are designed to keep students safe when they're online, helps teachers engage with their students, and provide schools with better control over how their technology is used. There are hundreds of these third-party tools that do single use tasks like simple photo editing to suites of tools that are multi-featured learning management systems. Each of these resources delivers features that can make a 1:1 program more successful and many organizations determine these tools to be essential valuable additions.

Too many great ideas in education have failed because of the lack of commitment to prepare students, parents, teachers, support staff, technology staff, and administrators for the upcoming changes.

Although mentioned above, one area that cannot be overlooked, is ongoing support of the devices that must be supported by people. This includes break/fix, inventory, training, and generally just being there when an end user needs help. Some schools can make this work by reducing their older and less reliable fleet of machines with newer 1:1 devices, others need to hire new staff or reclassify responsibilities, some close the gap with student leaders and experts, but typically it is a blend of these options that creates a support team to ensure that devices work in the hands of students.

If the district is ready to start evaluating devices, it is ready for large scale professional development. Too many great ideas in education have failed because of the lack of commitment to prepare students, parents, teachers, support staff, technology staff, and administrators for the upcoming changes. Start out by sharing the why with the school community and provide an opportunity to gather questions. The school leadership should make a commitment to respond to every one of these questions, no matter how simple or silly they appear on the surface. This is the time to establish confidence and trust which will grow into a strong foundation for the 1:1 program.



Another excellent exercise at this point is to begin gathering “Worst Case Scenarios”. Allow everyone that is going to be involved and supporting the program - everything from inventory to security to instruction to parenting - to offer up their ideas of what can go horribly wrong with the 1:1 deployment and program. Then a diverse team needs to be assembled to try to answer each of these scenarios. A great strategy in these discussions is to first try to figure out how you would solve the problem if it was analog instead of digital.

For example:

> ***Worst Case Scenario #1 (digital): One student is caught stealing devices from their classmates.***

The team should start by removing the piece of technology from the problem and look at how it would be approached under current practice:

> ***Worst Case Scenario #1 (analog): One student is caught stealing lunch money from their classmates.***

Many teams discover through these exercises that they solve the worst case scenarios all day long for analog problems. The same strategies apply for digital problems that emerge. This is great practice for when the organization goes 1:1 because the adults will start separating the situation from the technology. The majority of the time problems develop because of people, not because of technology. Schools have already developed solutions for when people do things wrong or are very good at responding to those situations as they arrive. The “Worst Case Scenario” exercise is one of the best meetings an organization can have to build confidence in the 1:1 program in advance of going live.

Chapter 3

Proposals and Approval - Questions about When and How

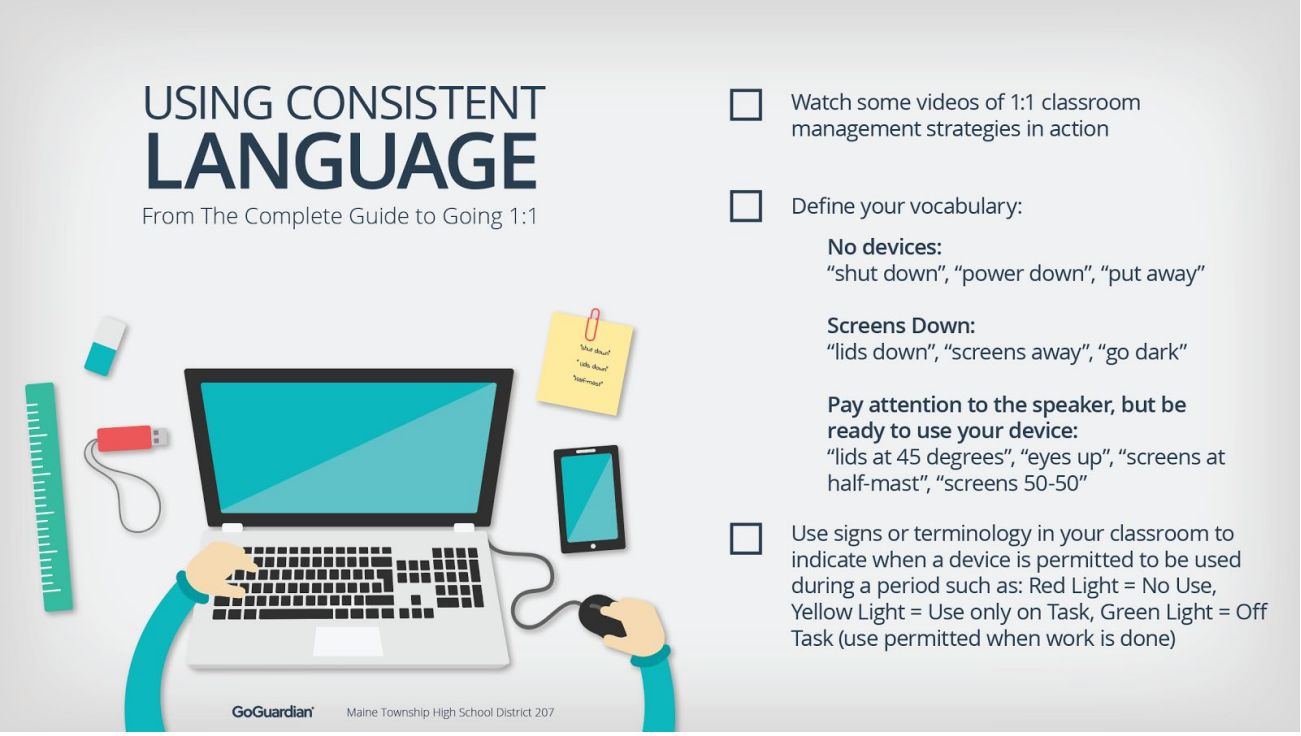
Once the leadership has the vision, trial results, device rubric scores baseline professional development completed, and worst case scenarios answered they are ready to float a proposal. This should be a formal document and presentation that should ultimately be made and approved by the Board of Education. The following topics should be covered in the proposal:

i. Rationale & Process
ii. Budget
iii. Sustainability
iv. Support, Breakage, Loss
v. Timeline
vi. Expected Results

Many of these areas were initially scoped during the building of the device scoring rubric, but now that a specific device has been determined they need specifics. Someone needs to create a narrative and a simple overview presentation that justify why the device chosen matches the needs of the organization and it must lead with the vision and end with the results. The entire proposal then needs to be distilled down to a single piece of paper that gives a readable overview of the program complete with “Frequently Asked Questions”. It is essential in the overview to link back out to supporting documentation, process, feedback, and resources so that the reader can go into a deeper dive if they are interested. These types of documents and supporting information is excellent to house on-line in a virtual and easily accessible format. Ultimately this is a comprehensive document that explains Why, Who, Where, What, When and How. Each document or presentation needs to close with a prediction of the resulting success of the 1:1 program and how the organization will respond as it learns more throughout this process.

Before all of this information is brought out publically in a board meeting the stakeholders that were involved in the work from building the vision to the trials should be provided an opportunity to review the final draft of the proposal and provide comments and feedback. This ensures that the information contained in the proposal appropriately represents everyone involved and helps them prepare for the questions that will emerge from the potential board approval of the proposal.

After securing approval for a program there needs to be another round of communication that clearly explains the proposal that was accepted by the Board of Education. The goal of this phase of communication is to “prepare people to respond”. There is potential for a lot of questions coming out of your program. The district should start liberally distributing the FAQ document created in advance of the Board proposal.



As more questions come into a variety of members of the school they should direct interested parties to the FAQ and this should be the single voice for answers. If a new question arises, or better answers are developed, the FAQ must be updated in real time - translating these documents into common languages is best practice as well. Virtual documents or web pages function as excellent tools for these types of FAQ's. The organization should have a combination of virtual and face-to-face discussions during this period and ensure that every effort is made to inform the school community of this change and its intended impact on learning.

Chapter 4

Professional Development

The general rule when planning professional development for a 1:1 program is to focus on the best practices for instruction that are enhanced by the presence of a device in every student's hands. However, everyone must also realize that there is a brand new technology tool that has the potential to disrupt the environment. Professional development leaders should acknowledge the tool, but get to practice as quickly as possible.

Having student leaders serve as the docents in the technology petting zoo is a great way to make the experience more personal and student centered.

Greeting the device should start with allowing students and staff to touch and feel the 1:1 product selected. An easy way to do this is to invite people into a common area such as the library or cafeteria to play with sample devices. Having student leaders serve as the docents in the technology petting zoo is a great way to make the experience more personal and student centered. This also allows everyone to start to visualize what it is going to look like when students start carrying the device all of the school.

The district leadership needs to outline some basic expectations around teacher skills going into the first year and some expectations around what will happen in classrooms. Allowing teachers to self-assess their skills to meet these expectations will allow instructional coaches to differentiate professional development opportunities to the needs of their teachers.

Maine Township High School District 207 in Park Ridge, Illinois integrated the following document into their professional development for teachers to provide "Strategies for Designing and Achieving High Impact Instruction in a 1:1 Computing Environment".

- Watch some videos of 1:1 classroom management strategies in action
- Define Your Vocabulary:
    - No devices: "shut down", "power down", "put away"
    - Screens Down: "lids down", "screens away", "go dark"
    - Pay attention to the speaker, but be ready to use your device: "lids at 45 degrees", "eyes up", "screens at half-mast", "screens 50-50"
- Use signs or terminology in your classroom to indicate when a device is permitted to be used during a period such as: Red Light = No Use, Yellow Light = Use only on Task, Green Light = Off Task use permitted when work is done

Require "Ask 3 Before Me"

- Students should ask 3 other students for help before asking you for help
- Many students will be adept at using their devices - leverage their knowledge and skills

Strategies for Designing and Achieving High Impact Instruction in a 1:1 Computing Environment

Always remember you are the teacher in the classroom

- Set clear expectations of when or how devices should and should not be used in the classroom
- Establish that online classroom behavior is an extension of the classroom and comes with the same rules and expectations
- Teacher always has the discretion of when to, or when not to, use the device
- Expect that screens will be kept where you can see them
- Communicate that you expect P.R.I.D.E. when using devices
    - P – Purpose for using device is always educational
    - R – Responsible use of devices is always expected
    - I – Instructions for device use will always be followed

    - D – Devices must always be using the school's WiFi network
    - E – Everyone will always conduct himself or herself responsibly online

- Develop a classroom acceptable use agreement focused on digital citizenship that outlines any of your expectations beyond school policy.
- Establish that the rules may change based on classroom activities and situations

Use consistent indicators, vocabulary, and phrases when instructing usage and behaviors with devices

Consider the devices, room, ratios, and roles when planning

- 1:1 is not always appropriate for the activity at hand
    - 1 device for the whole class might be right if one student is researching something or taking "class notes"
    - 2 devices for the whole class if the class is split into 2 groups
    - 1 device per small group or a pair of students
- The layout of desks and tables in the room can factor into ease of monitoring screens, leading instruction, or participating in group activities
- Students should not be expected to loan their devices to other students - Chrome Depot can help with loaning equipment
- Complex activities may be easier with less devices in use
- There are lots of activities where having no devices out at all is appropriate as well
- Assign group roles
    - Different tasks may require different roles - consider all of the tasks/parts of a lesson and designate responsibilities: like this skype lesson
    - Roles can be used to differentiate instruction

When in trouble consider "what is the analog equivalent"

- How would you handle the off-task or inappropriate activity if it happened with pencil and paper instead of technology?
- What were my expectations without technology (being prepared for class, turning work in on time, staying on task) and how do they translate to to the digital environment?
- Often the solution for "digital problems" are the same as ones for a similar "analog problem"

You don't have to be the expert on every device, tool, or service

- You should know what is possible and what can be done
- Students should be expected to know how their device works
- Leverage other staff and student experts in finding your way to the goal
- Students should be expected to come to class with their required materials, including a charged chromebook. Students should not charge devices in class
- Teachers or students that need any type of chromebook support should visit the Chrome Depot

Walk around, ask questions, and engage to keep students on task

- Walk around and watch screens - students will begin to expect that you are watching
- Ask questions about what they are learning, doing, and creating
- Have students teach you new things - question how they arrived at their products
- Create engaging activities and constructive experiences to help students stay on task

Always have a "Plan B"

- Things go wrong at times with all lessons - be ready to respond
- It is technology we are working with - by nature it breaks
- Be patient and flexible and have an alternative activity that works towards the same learning goals

Communicate expectations for what students can do on devices when class activities are completed

- Build a list of allowed activities based on some examples (adapted from Doug Johnson):
    - Read a book (Project Gutenberg has 1000's of free titles), magazine or blog post of personal (and school appropriate) interest.
    - Work on another assignment or check your progress for this or another class.
    - Play a pre-approved game that builds skills related to the class. (If you find a game that you feel contributes to your learning, tell me about it and why you think it should go on the approved list.)

    - Have a serious discussion with a classmate about a topic in the course using an approved discussion tool (Google chat, classroom communities, etc).
    - Listen to an educational podcast or view an educational video. TED talks, Khan Academy, BrainPop, or Mediacast videos are always OK. (Remember to use your headphones.)
    - Organize your life by reviewing/updating your calendar, to-do list, or address book.
    - Write in your personal journal.

- Boredom leads to disruption
- Students should expect that when you walk around and do not see one of the established items on the list they will be asked to get back on an approved task.

Allow yourself to be a learner

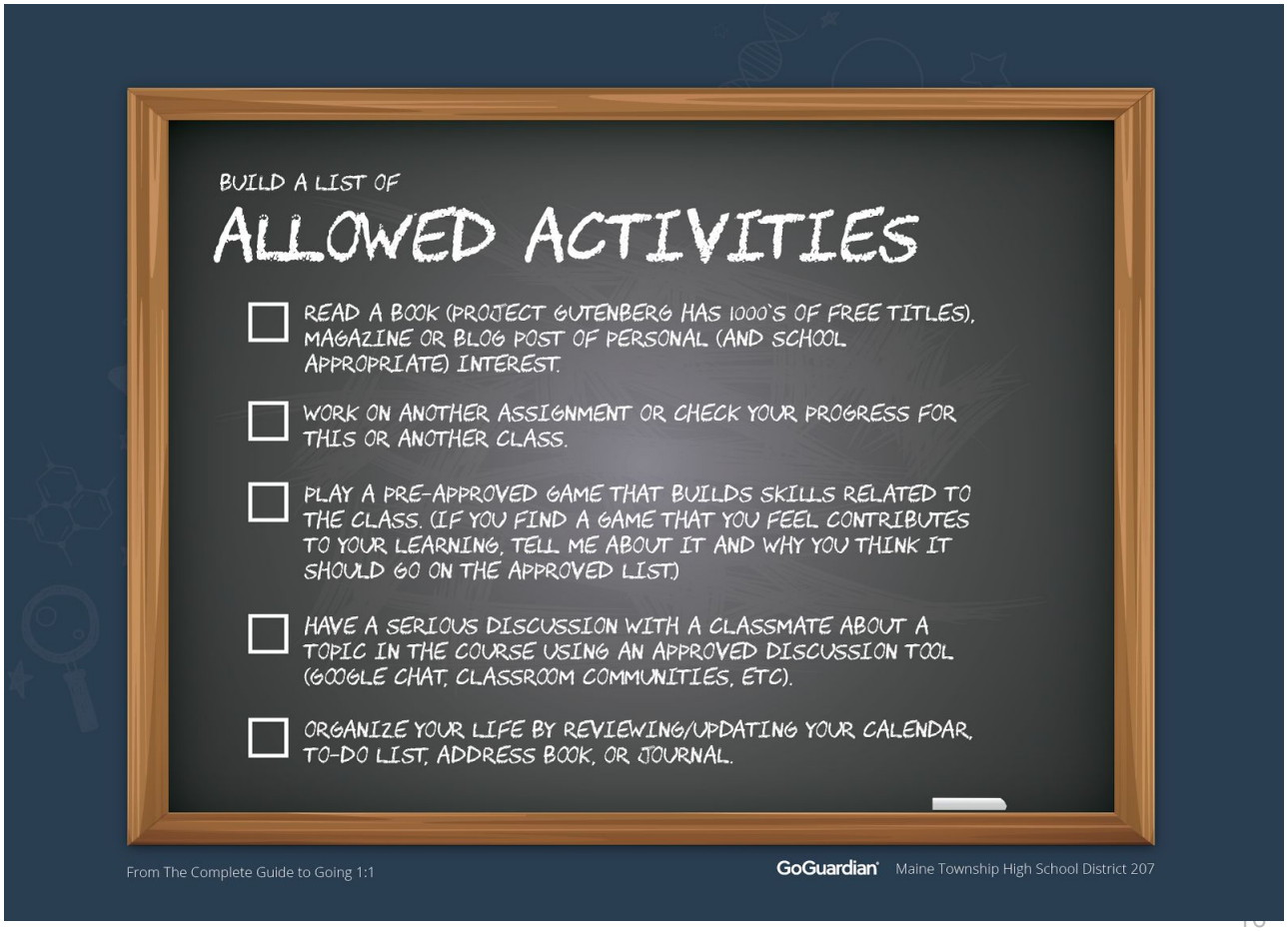
- Learn from your peers and share with others what works
- Use the SAMR model (overview and video) when deciding how to change and build lessons work towards higher order thinking
    - First Goal: to maintain the excellent instruction you already do while adding new resources
    - Second Goal: to enhance the classroom experience using new resources, strategies, and ideas
    - Third Goal: to go beyond what you could do before now that students can access a device and the Internet to the point where you could never go back
- Examples of activities and the SAMR model
- A simple example of three leveled tiers of technology use can be illustrated by this example from the Marzano Research Lab:

Beginning Tip	Consider using polling technology (via clickers or free polling software such as Socrative, TodaysMeet, or Poll Everywhere on students' mobile devices) to collect formative assessment data and track progress toward the learning goal.
Emerging Tip	Have students use polling technology to track their own progress on a proficiency scale.
Innovating Tip	Have students use polling technology to track their own progress and their level of effort on a proficiency scale.

Get familiar with rules around acceptable use

- Acceptable use policy
- Mobile electronic policy
- Key Phrase: "*Any use of a mobile computing device on school grounds during or after the school day by any student, staff member, or guest that disrupts educational process, goals of the institution, or violates the acceptable use policy is prohibited.*"

After teachers are introduced to these topics like those listed above, it is time to develop and ongoing professional development series that will be offered throughout the year. These sessions should focus on instructional strategies supported by a 1:1 environment. For example, there could be sessions on formative assessment supported by online tools. The focus is on assessment, while the tools help make the practice more efficient. On demand professional development opportunities need to be developed and provided for teachers. These could take the form of online instruction, face-to-face instructional coaching, or a combination of both.



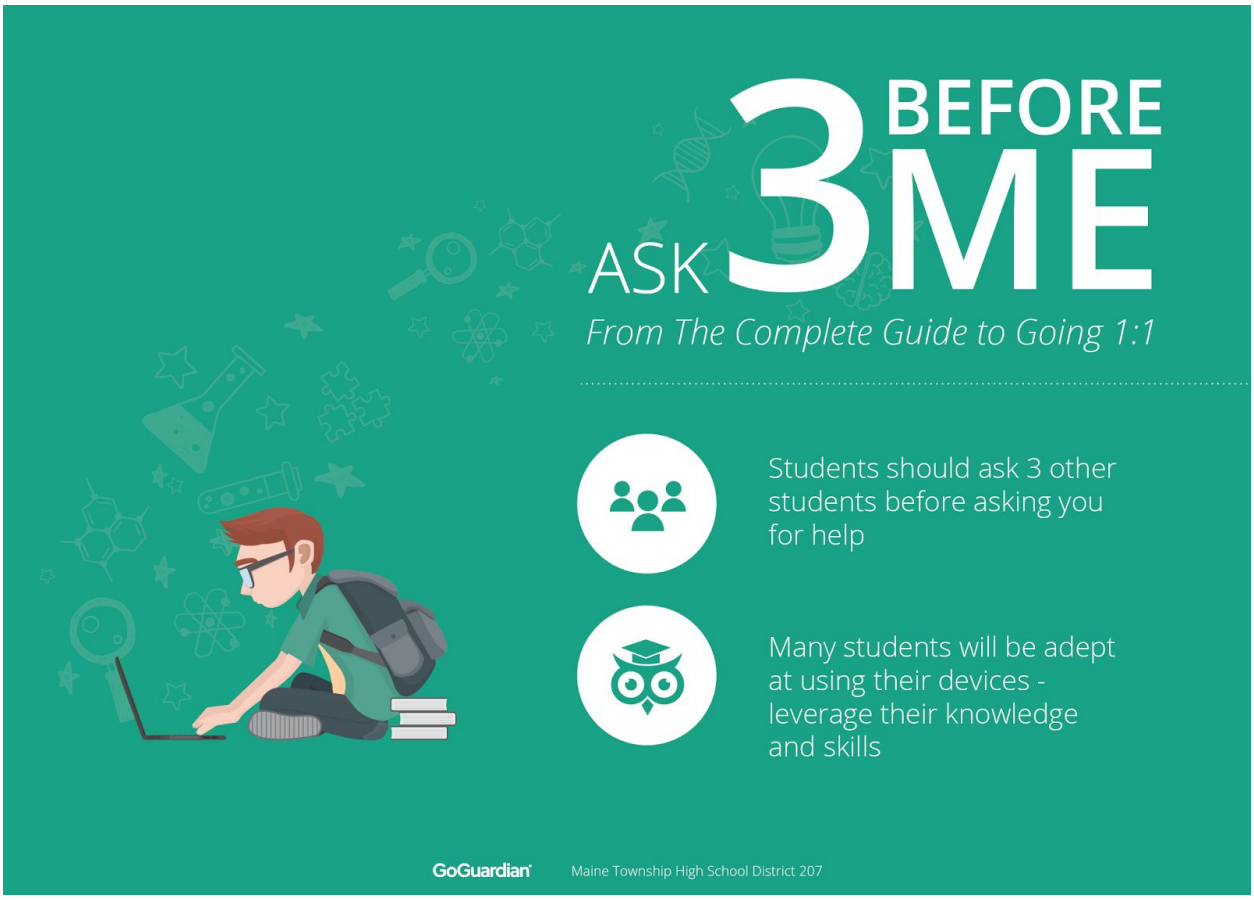
Chapter 5

Planning for Deployment

Thoroughly preparing for the deployment and distribution of devices is essential to a successful 1:1 program. Having a clearly defined process, in an accessible location supported by strategically placed signage, combined ample advanced communication, and outfitted with properly trained and appropriately staffed support team are the keys to creating a positive experience on the day when students pick up devices. A general rule to live by on distribution day is that the goal is to get the device into the hand of the students and get them logged in. The planning should allow for follow up after the day for loose ends or glitches that do not work as planned. A strategy for cutting down on the number of problems during large scale distribution is to have three dry runs before going live. During each of these tests check for hardware and software functionality, have power sources available for devices that no longer hold a charge, test network connectivity, walk through password issues and resets, and have information for families regarding where to go for help including breakage or loss. The first test is to have the technology team go through the distribution plan as a student record any problems and create fixes. Repeat this step with volunteer staff and students. It is essential to execute each of these trials before distributing any printed information to families as the process may change greatly based on your tests. The day before the large scale rollout bring in a small group of students to pick up their devices for last minute adjustments. Bringing student leaders through first that are volunteering the following day to assist is an excellent way to test the process while preparing your student helpers.

...the goal is to get the device into the hand of the students and get them logged in.

During the deployment process there should be professional development, tip sheets, and online resources for technical issues. However, the resources should expand to include strategies for parents in a 1:1 household and how to create a successful



environment at home with a computing device. For many families this may be the first computer that they have owned and for many more it will be their first time they have had the responsibility of parenting a child with dedicated access to a computer and perhaps even the Internet. The school that puts parents in this new situation has the requirement to prepare parents to succeed in this new world. Similar opportunities should be provided to students before school starts or immediately as part of the school day after distribution.

Chapter 6

Post Deployment - Questions about Now What?

After successful deployment, and a celebration of all that has been accomplished, the team needs to realize that they have made it to the top of a mountain and need to find their way back down and up the next peak. The organization as a whole must start learning from what comes next and adapting to the changes and challenges they uncover. Regular surveys, class visits, and focus groups targeting all members of the school community should be used to assess the progress of the program. Leadership needs to adapt and respond to what they learn by providing additional training, resources, changing practices/policies, or redefining expectations. This is a fluid experience and organizational flexibility is essential to the program's ultimate success.

When an organization does this right they are future proofing the learning experience in their schools.

There are aspects of every successful deployment that hold true:

- The program must start to improve
- Technology will break and adjustments will have to be made
- There will be doubters that eventually become late adopters
- New tools will come out that are better than the old tools
- Just in time learning is essential to building confidence

Many schools get stuck in the planning phase and just need to move forward and the same will hold true for teachers. Asking the people in the organization to make a commitment to continue to try and change will help make the program successful. Technology always seems to find a way to create challenges on the way to new amazing outcomes and everyone has to be willing to keep moving in the direction outlined at the start through the vision. This type of change takes time and it will not be perfect from the start, but a commitment to continual improvement will lead to success.

Reporting out challenges and successes

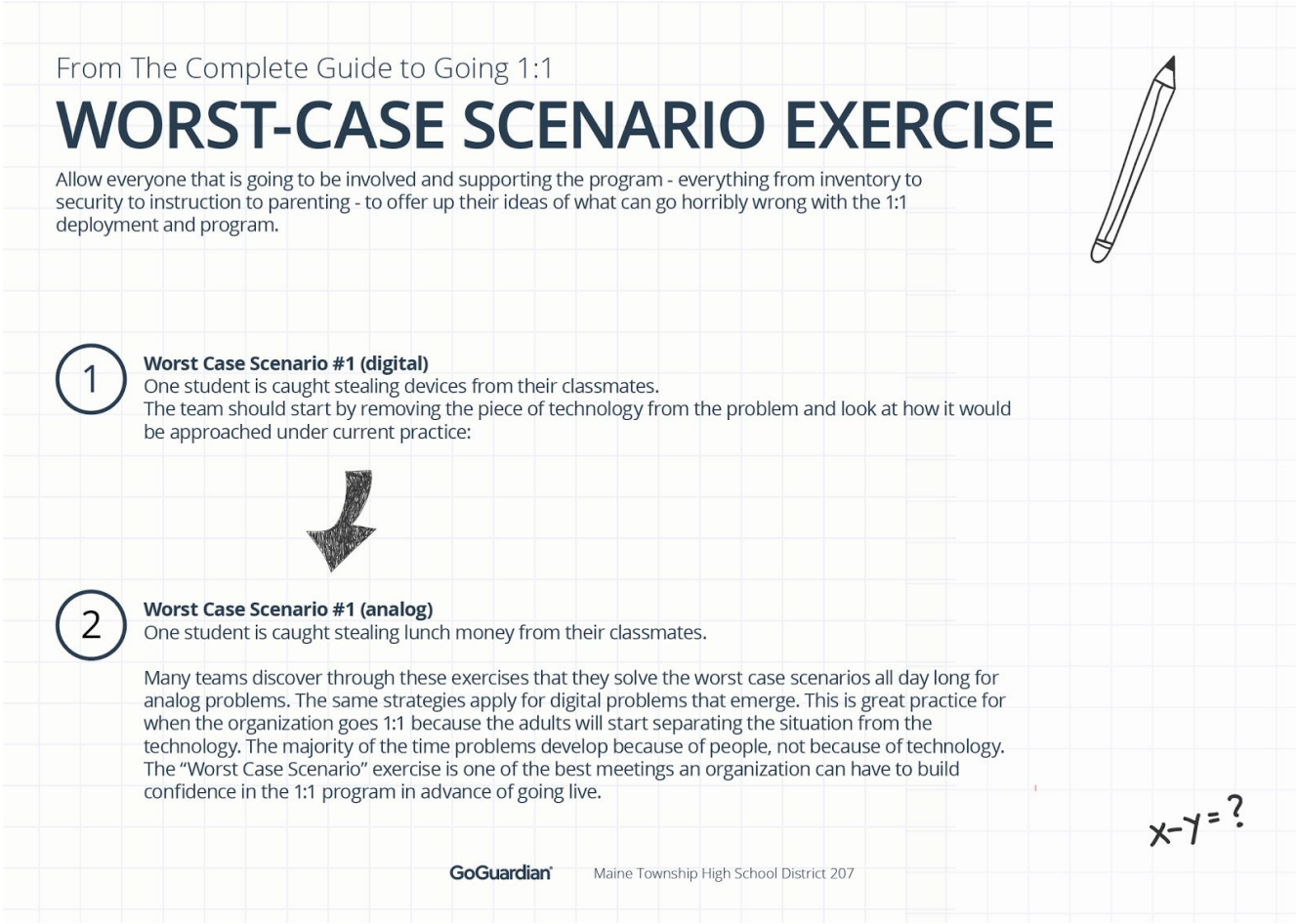
After everything is out and the device is making a difference in learning it is the organization's responsibility to share great stories. They must tell their students, parents, and profession about the amazing changes that are happening in classrooms and beyond. An effort must be made to identify ways in which the school is improving now that this new 1:1 resource is available. School leadership and teachers should look at test scores and grades - but get past those - and find ways that people are communicating differently, actively accessing information, using time more wisely, cutting out waste, and reflecting how they are reflecting how the modern world is getting work done. Ultimately this is a journey that will never end. It is starting down the path of continual improvement because going 1:1 is an investment in everlasting change. When an organization does this right they are future proofing the learning experience in their schools.

Technology always seems to find a way to create challenges on the way to new amazing outcomes

Planning for what comes next

Device rollouts need to be maintained, so your initial strategy should include plans to stay current with technology updates and developments in the industry. Each device and

platform is sightly different, and requires different provisions and preparation. For examples, schools that go 1:1 with Chromebooks should be aware of Chromebook End-of-Life policies and communicate this to stakeholders and organizational planners. You'll find the additional support and resources of professional communities such as the GAFE Admins group invaluable. Simply following hashtags like #chromebooks will keep you up to date on breaking trends and best practices. These communities exist to help leaders in 1:1 keep progressing their models while providing opportunities to share success. They are constantly sharing trends and changes in the 1:1 and educational technology environments including big changes such as Android running on Chromebooks, or little tips like what apps to push out to students. Either way, utilizing the tools at your disposal by accessing available information fosters a more vibrant and responsive 1:1 program.



Conclusion

Bringing It All Together

The devices, rollout process, timing and goals you choose for your 1:1 program all play pivotal roles in its success and impact on students and teachers. As educators worldwide increasingly embrace technology's ability to bring unprecedented resources, insight and experiences to students while preparing them for the modern workforce they'll face, new communities and resources emerge to inform and support your 1:1 programs. Utilize the tools and information from other educators running similar technology programs, while keeping your district's unique curricular objectives and needs central to your 1:1 program's design.

> The organization as a whole must start learning from what comes next and adapting to the changes and challenges they uncover.

The devices, software, training, tools, and maintenance in your district are likely to evolve with your students and technological advancements. By anchoring the program's direction, design and priorities around your student's needs, you can ensure that your 1:1 program has the intended outcome. After all, technology in the classroom isn't the end goal: it's the means to reach better learning and instructional outcomes for students and teachers.